

IN THE CLAIMS:

1-3. (Canceled without prejudice)

4. (Currently Amended) ~~In a~~ A magnetic memory device, comprising:

-a magnetoresistive effect element designed in such a manner that a ferromagnetic tunnel junction sandwiching a tunnel barrier layer is formed between a pair of ferromagnetic material layers to cause a current to flow in the direction perpendicular to the layer surface; and

a plurality of word lines; and

a plurality of bit lines, said word lines and bit lines sandwiching said magnetoresistive effect element in the thickness direction,

wherein a magnetic memory device characterized in that one of said ferromagnetic material layers is a magnetization fixed layer and the other ferromagnetic material layer is a magnetization free layer, said magnetization free layer is made of a ferromagnetic material containing $\text{Fe}_x\text{Co}_y\text{B}_z$ or FeCoNiB , x is from 5 to 45 atomic percent, y is from 35 to 85 atomic percent, and z is from 10 to 30 atomic percent, and

wherein said magnetization free layer has a film thickness ranging from 2 nm to 8 nm.

5. (Currently Amended) A magnetic memory device according to claim 4, wherein ~~magnetoresistive effect element is a tunnel magnetoresistive effect element using a~~ said tunnel barrier layer is made of one of an insulating or semiconductor material as said intermediate layer.

6. (Original) A magnetic memory device according to claim 4, wherein said magnetoresistive effect element has a laminated ferri structure.

7. (New) A magnetic memory device according to claim 4, wherein x is greater than 8 atomic percent.

8. (New) A magnetic memory device according to claim 4, wherein y is less than 72 atomic percent.

9. (New) A magnetic memory device, comprising:
a magnetoresistive effect element designed in such a manner that a ferromagnetic tunnel junction sandwiching a tunnel barrier layer is formed between a pair of ferromagnetic material layers to cause a current to flow in the direction perpendicular to the layer surface;
a plurality of word lines; and
a plurality of bit lines, said word lines and bit lines sandwiching said magnetoresistive effect element in the thickness direction,

wherein one of said ferromagnetic material layers is a magnetization fixed layer and the other ferromagnetic material layer is a magnetization free layer, said magnetization free layer is made of a ferromagnetic material containing $\text{Fe}_a\text{Co}_b\text{Ni}_c\text{B}_d$, a is from 5 to 45 atomic percent, b is from 35 to 85 atomic percent, c is greater than 0 and less than 35 atomic percent, and d is from 10 to 30 atomic percent, and

wherein said magnetization free layer has a film thickness ranging from 2 nm to 8 nm.

10. (New) A magnetic memory device according to claim 4, wherein said tunnel barrier layer is made of one of an insulating or semiconductor material.

11. (New) A magnetic memory device according to claim 4, wherein said magnetoresistive effect element has a laminated ferri structure.